THE FARMER & GARDENER.

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, SINCLAIR & MOORE, AND ROBERT SINCLAIR, JR.—EDITED BY E. P. ROBERTS.

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☞ THIS publication is the *successor* of the late **AMERICAN FARMER**, and is published at the office, on the *west side of Light, near Pratt street*, at FIVE DOLLARS *per annum*, payable in *advance*. All subscribers who pay in advance, will be entitled to 50 cents worth of any kinds of seeds, which will be delivered, or sent, to their order.

American Farmer Establishment.

BALTIMORE: TUESDAY, JUNE 14, 1836.

The Honorable *Daniel Webster* has purchased 5,000 Mulberry trees, for his farm in Marshfield, Massachusetts. We sincerely hope his enterprise will prove as successful as his example is praiseworthy.

Last spring we purchased for a gentleman in Washington county of this state, from that distinguished breeder, Mr. John Barney, formerly of Port Penn, Delaware, *three cows*, and we are highly gratified to find by the subjoined extract from a letter from him, that they have proved to be entirely satisfactory.

"MARGARET'S COTTAGE,
Washington Co., Md., June 3.

Knowing that you take an interest in these matters, I beg to inform you that two of my cows, purchased through your agency, have produced fine calves—the "*Sims*," and the three-fourths Durham, the first a heifer, the other a bull. They turn out to be first rate milkers, and fully equal my expectations. Indeed I expect the "*Sims*" is the deepest milker in our county; she yields at least 22 quarts per day, besides which the *milk is very rich*, and would yield, I have not the least doubt, 15 lbs. of butter per week."

"The wheat crops in this neighborhood have almost entirely failed; the rye looks promising."

The "Sims" cow spoken of above, is a descendant of a Holstein cow, imported some years since by Mr. Sims, formerly of Philadelphia; the breed are remarkable for their great size and deep milking propensities.

NEW YORK AGRICULTURAL SCHOOL.

The legislature of New York recently passed an act to incorporate an Agricultural School. The capital stock of the company is to consist of $100,000, with liberty to increase it to $200,000, in shares of $25 each, which is to be considered as personal property, and be assignable in such manner as the company may prescribe. The capital of the company to be exclusively devoted to the purposes of instruction in literature and science, and improvement in scientific and practical agriculture and the mechanic arts.—The corporation is to have power to hold property to the amount of its capital, and to convey the same away.

At the first subscription to the capital stock of the company, no subscription above $1,000 by, or in behalf of, the same individual, shall be received; *five per cent.* on each share to be paid at the time of subscribing. The commissioners have power in the event of the subscription not being all taken when the books are first opened, to receive subscriptions subsequently until the whole shall be taken, and in case more stock is subscribed than the requisite amount, the commissioners are empowered to apportion the same among the stockholders as they may deem most advantageous to the interests of the institution. There are to be 32 trustees, two of whom shall be the governor and lieutenant governor, who are to manage the concerns of the corporation.

The trustees have the power to elect the officers of the company, appoint professors, masters and agents for the school; and they are directed to purchase a farm of about 500 acres of land, either contiguous to or near the Hudson river, and as nigh to the city of Albany as may be convenient, and shall cause to be erected thereon such buildings as may be suitable and necessary, and make all such other arrangements as may be proper for the future business of the corporation. The corporation are bound to make it an indispensible requirement, that the professors, teachers and pupils, shall, unless prevented by sickness or other reasonable cause, occupy themselves for at least one half of the time the school is in session between the months of March and December, either in the practical agricultural business of the farm, or in the laboratories or mechanics' shops to be connected with the school.

The corporation is never to declare a greater dividend than 8 per cent. All surplus profits over that sum, to be expended in additions or improvements to the farm, buildings, library, apparatus, or other necessary establishments connected with the institution, or in reducing the price of tuition at the same.

Three visitors are to be annually appointed, whose duty it shall be to make a report to the legislature at the commencement of its sessions each year, of the state and condition of the school.

To shew our readers the importance that is attached to this new institution, and the moral certainty of its being carried into successful operation, we will insert the names of the individuals who constitute, under the law, the *nucleus* of the corporation. It will be seen that they are among the most distinguished gentlemen in the state of New York. They are, William L. Marcey, Jno. Tracy, Jesse Buel, Stephen Van Rensselaer, Hy. Bates, Gideon Lee, Joab Center, John P. Beekman, Cornelius W. Lawrence, Philip Hone, Benjamin Knower, Gouverneur Ogden, Erastus Corning, James Wadsworth, David E. Evans, Hiram Pratt, Walter Cunningham, Gilbert O. Fowler, Nathaniel P. Tallmadge, Nicholas Devereux, Anthony Van Bergen, Garrit Wendel, Archibald McIntyre, Thomas D. Burrel, John Greig, Thomas W. Olcott, Ziba A. Leland, George P. Oakley, John Delafiels, Edward P. Livingston, John Townsend, and Lewis F. Allen. We hazard nothing in saying, when such men become the sponsors for an institution, that there can be no question as to the certainty of its succeeding; the influence which their high character carries with it, is at once a guarantee to the public that far more elevated considerations than those which obtain in the possession of lucre, enter into the motives of the friends of the measure—for in the *motives* of *such* men, personal aggrandizement cannot enter—the promotion of the cause of husbandry, the advancement of the mental and domestic relations of those engaged in it, and the furtherance of the science of agriculture, by calling to its aid the youths of the state, and unfolding to their ambition those lights which shed so much lustre upon the paths of its followers—these are the *alpha* and *omega* of their aspirations, and in the purity of their intentions—in the laudableness of their views—we have at once the bond and fulfilment of its conditions.

We last year called the attention of the agriculturists of the United States, to the importance of organizing Agricultural Societies in each of the several counties in the nation, and endeavored to

impress upon them the deep and profound consequence it was to the interests of those engaged in the cultivation of the earth, that there should be established in each state of the Union, at least one Agricultural School; and we would again respectfully direct their attention to the same subject. Agriculture, like all other sciences, is a progressive one; new lights are almost daily pouring in upon us in every direction, and if their benefits are to be made profitable, some extra means must be taken to enlighten the minds of those engaged in its pursuits generally; for unless the diffusion of knowledge should extend to all alike, it will act by its inequality as a tax upon agricultural labor, instead of proving a blessing, as all such things should. We have often taken occasion to illustrate the tenacity with which we all adhere to the customs of our childhood, and how difficult a matter it is to introduce any improvement to popular favor. This difficulty has its foundations laid in the best virtues of the human heart, and is therefore the more difficult of eradication. To cherish the ways of our fathers, and to follow in their footsteps, have always been esteemed as debts due from us to those who nurtured us in the hours of infancy—has been hallowed as the offsprings of filial piety. Thus entrenched in the holiest affections of the heart, it ceases to be a matter of surprise that a system of husbandry which has reduced the rentals of hundreds of the proprietors of the soil to a mere nominal sum—which has despoiled their fields of their capacity to produce—and driven their children from their homes—We say it ceases to be a matter of surprise that under such circumstances, there should be such disinclination on the part of farmers and planters to depart from those modes of culture that had taken field after field from cultivation, and made such deplorable inroads upon the incomes of the husbandmen of the old states. But though it has ceased to be a matter of surprise, it is nevertheless an object of vital moment, that some plan should be devised to introduce better systems of culture.—How this is to be effected is the question for consideration. So long as the old modes of cultivation are handed down from father to son, without any chance of ever challenging the mind to halt in its course sufficiently long to *think*, whether a better one might not be substituted, so long will the present disastrous consequences continue to flow, to the great detriment of the landed interest. Can a change be effected? We answer, yes. The mode is as simple as it will prove salutary. Let Agricultural Societies be established in every county in the country, a general Agricultural Society and an Agricultural School in each state, where the science of agriculture, *as a science*, shall be taught, both theoretically and practically; at which schools a certain number of indigent youths should be instructed gratuitously, while those who are able should be made to pay for their instruction. The gratuitous scholars should be selected from *every part* of the respective states, so that when they return to their homes, what they may have learnt may be spread far and wide, the influence of their example be felt, and their knowledge have the greatest possible chance of being extensively known. By this means, although we may not be able to correct the erroneous practices of the present generation, the injury which would result from their being entailed upon the succeeding one may be obviated, by laying a timely groundwork for the dissemination and inculcation of sound physiological principles.

Although the value of *lime* as a corrector of the bad qualities of soil, and as an agent of melioration, through its stimulative properties, was known and used as such centuries ago in Europe, yet its virtues in this respect, if we are to judge from its non-use, we would say were not known in this country, until comparatively a few years since; and even now, its application is greatly restricted.

Again, the meliorating properties of Plaster of Paris, strange as it may seem, are but partially availed of, and indeed its benefits have been literally withheld from many districts of country where it could have been used with the greatest advantage, owing to the absurd opinion which obtained currency, that it would not act beneficially on fields in the vicinity of tide water. The specific virtue of plaster, as understood, is its power of attracting moisture from the atmosphere. Now if this be the cause of its fertilizing qualities, we would ask, why should it not exert its good effects in the vicinity of rivers, as well as in the interior? Does not vegetation suffer from drought in the vicinage of the former, as well as in the latter? Then why should its virtues be active in the one place, and quiescent in the other? No one can give a reason in justification of so absurd a theory as the one we allude to, which would stand the test of physiological investigation; for heat, light and moisture, are the great elements which comprise the cause of all healthful vegetation, and these are needed as much in one place as in another; but the *dictum* had gone abroad, that plaster would not act in the neighborhood of tide waters, and without common sense to sustain it, the opinion prevailed, and prevailed too, without being subjected to the least rigid scrutiny, or being submitted to the test of experiment, fairly and fully made. Some one had applied it on his fields adjacent to rivers, and because miracles were not instantaneously wrought—because a field which had been literally *killed*, did not like Aaron's rod, speckle all the flock—did not become at once restored to its original fertility, why forsooth, it was utterly worthless. We never have been believers in such faith. We never have quarrelled with any of the fructifying agents, because they did not, instantly on trial, restore the earth to its pristine integrity. We always thought that that which required *a series of years* to deprive it of its powers of fruitfulness, would take *some time*, at least, to bring it back again to its former state of productiveness; and have, therefore, always felt called upon to look calmly into the why and the wherefore of any subject under consideration, before we made up our opinion. "Error of opinion may be tolerated where reason is left to combat it," is the sentiment of one of the great men of the best age of our country, and all we are now asking is, that this same sentiment may be carried out for the benefit of agriculture—we ask that reason may be permitted to combat the prejudices of former times, and that no one should pursue a custom, no matter how sanctified by years, unless it be founded on common sense, and be productive of good.

LOSSES FROM THE LATE RAINS—PROSPECTS OF THE CROPS, &c.

We understand from a gentleman recently from Delaware, that the farmers in the neighborhood of Delaware City and Port Penn, have suffered severely by the late rains. The Delaware river rose so high as to carry away the embankments on its margin and overflowed the marshes, or reclaimed lands on the St. George's Creek. Mr. Kennedy, an enterprising and wealthy farmer, had 180 of his sheep swept off and drowned; Mr. Exton another wealthy farmer lost several of his flock; Mr. Blandy, an agriculturist of distinction and large means, who also resides in the same vicinity, has sustained a very heavy loss in hay and grass, and will have to part with more than half his stock in consequence of the inundation of his pastures.

These losses are all in one neighborhood, and we fear there is too much reason to apprehend that the injury has extended all along the course of the river Delaware; if so, the amount of loss

will prove most heavy indeed, not only to the individual sufferers, but to the cities of Philadelphia and New York, whose markets are annually supplied with large numbers of beef-cattle from the luxuriant marshes which border on that turbid stream.

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Cotton Crop—The Charleston Mercury of the 4th, says: Ruinously immoderate rains have prevailed throughout the interior of the south and south-west, and a great portion of the cotton region has been deluged. The injury has been more partially felt in S. Carolina, than in the interior states, although immense loss will accrue from the rise in the Congaree, and other of our streams. This with the war in Texas, and the Indian difficulties, interrupting the plantation business at a critical period, will greatly diminish the cotton crop of 1836. The effect is already felt in our market, where large orders have been receiving during the last ten days.

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Camden, May 31—The river is so high that the mails cannot get across, every thing on the river is gone, the freshet is as high as it ever has been."

A private letter from Camden, under same date, says, the crops as far as we can hear are generally destroyed, and it is too late in the season to replant cotton—we have not heard from the Pedee or Congaree, but presume that it is equally as bad as the Wateree.

Rice Crop.—A gentleman who arrived at Charleston on Saturday morning, whose plantation is on Black river, about twenty miles from Georgetown, states that the injury to the Rice crop is expected to be most extensive, from the rise of tide on the Santee, Wateree, and Pedee rivers. He noticed on his way down one break on a plantation of 100 feet. On Black river there were a number of breaks. The tide rose 18 inches in an hour, has been rising since from 3 to 4 inches every night, and has been higher than it was during the gale of 1822. All the plantations in that vicinity are under water.

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Letters from Columbia, June 1, and Vicksburg, Miss., May 3, give similar accounts as the above. The letter says—

The whole country is inundated with water—several of the plantations above this place have already been abandoned by the owners, and much damage will be done to the crop, and heavy losses sustained by them on the Mississippi river. Many men that have heretofore had the reputation of being wealthy will be bankrupt by it.

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We regret to learn, that wheat fields in almost every direction, present a most melancholy prospect—the worm has been busy with the young stock, and decay is so obvious, that the whole harvest of many immense fields will scarcely return the amount of seed used in sowing. This intelligence comes to us from many counties in the vicinity of our city, from Delaware state, Maryland, and different parts of Virginia.

Indian corn has been greatly injured by the recent wet weather—is it too late to replant?

The rye which was in blossom must also have suffered from the easterly winds and protracted moisture.—*U.S. Gaz.* —

The rainy weather still continues. We have had, with little variation, now and then only a short interval of sunshine, nearly three weeks of cloudy, drizzley, rainy weather. The earth is perfectly saturated, the streams high, corn and much of the vegetation and shrubbery assuming a yellow, sickly appearance.—*Hagerstown Torch Light, June* 9. —

The *Farmer*, published at Jonesborough, Tennessee, observes:

"We regret to state, that the ravages of the Hessian fly have this spring proved very destructive to the wheat in this section of the country. We are informed that many fields have been ploughed up and planted in corn, and it is certain the crop will be greatly diminished. Until a short time since, the wheat crop was unusually promising. So far, the season has been quite favorable to the corn and oat crops."

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The Fincastle (Va.) Democrat of June 3, thus sums up the prospects of the wheat crop:

The ravages of the fly, of which our farmers generally complain, and which they represent as very extensive, are not more destructive with them, than with the farmers of the adjoining, and some of the lower counties. The Staunton Spectator says, the fly is injuring the wheat crop considerably in Rockbridge and Rockingham, and that there are similar complaints in Augusta. The Charlestown (Frederick county) Free Press, represents the prospect of the crop, in that county, as absolutely appalling. It says:

"The ravages of the fly have been so fatal that in many places the naked earth is presented shorn of the rich verdure which for a while covered its bosom. The late delightful rains have refreshed and invigorated other substances, but the wheat is beyond redemption."

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For the last ten days the rain has fallen in torrents, and, for several days past, nearly without intermission. The Potomac rose 8 feet higher, perpendicularly, at the Big Spring Mill, than has been known for many years. The water is on Selden's Island, and considerable portions of Swim's Island; we learn it rose to the burr stones in the 2d story of Smart's mill, on Goose Creek, and was nearly up to the lower floor of the Big Spring Mill; the damage to the crops on the islands, on the river, and on the river bottoms, must be immense. In the injury to the mills, mill dams, fencing and other property on the water courses, we fear we shall have to record many very serious losses.—*Leesburg Va. Press.*

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The present prospect for a wheat crop in Somerset is distressing to contemplate. Many of our farmers will not reap at the approaching harvest more than the quantity seeded last fall, whilst others will probably make about the half of an ordinary crop. Rye and oats look very well, but even these crops present a much less flattering appearance than usual.

We have not understood whether the present blighted and sickly appearance of the wheat fields, in this county, is owing to the ravages of the fly, (so much complained of in the adjoining counties) or to the extreme severity of the winter; to the latter, we presume, however, it is mainly attributable.—*Princess Ann, (E. S. Md.) Herald, June* 7.

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We stated several weeks ago, that, owing to the severity of the winter, wheat, in this and the adjoining counties generally looked very badly; and subsequent information has but too amply confirmed the statement. In addition to this, we have recently heard many complaints of the prevalence of the fly; and there is no doubt that their ravages, this spring, have been wide spread and serious. The prospect touching the crop in these counties, and we apprehend throughout the Eastern Shore, is, therefore, gloomy indeed. In Talbot, it is unprecedentedly so. There, some intelligent persons say, certain districts will not reap their seed, while others state that the aggregate product of the county will probably not exceed the quantity sown therein. Of course, into many fields the sickle will not be sent at all.

Since the above was written, the editor has passed through Talbot, nearly from its northern to its southern extremity; and judging from what he saw, it would appear that these gloomy representations are, by no means, exaggerations. Clover, grasses, gardens, &c. also have suffered much from drought, in that county.

The young corn crop has as yet reached only a low stage in its growth, and there is no adequate ground whereon to predicate a plausible conjecture as to its product, since that depends more upon future contingencies than present appearances. Yet, it may not be amiss to add, that in Talbot this crop, (though there checked in its progress by drought,) stands well, and holds forth quite a fair promise; while in this county, it looks not so well, the worm having done it considerable injury.

As to the mast and fruit generally, every thing indicates, we believe, great abundance, as well as fine quality.—*Cambridge Chronicle.*

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Curing Pork.—A method for packing pork (proposed by Capt. Ingersoll, in the Vermont Farmer) is, after having cut it while hot (i. e. as soon as possible after it is killed and dressed) into pieces of four or five inches wide, he rubs it thoroughly with fine salt and saltpetre, four quarts of the former to two ounces of the latter for one hundred pounds of meat. He then packs it in the cask as close as possible, with coarse salt; placing the skin next to the cask, and filling every part with salt. It will require some pickle, which in warm weather should be applied immediately.

By observing the above rules, pork may be reserved sweet when killed and put down in the warmest season.

His mode of preparing bacon, is to rub it thoroughly with fine salt and saltpetre; half an ounce of the latter to a leg of common size. He then puts them in a cask, and adds one gill of molasses to each leg or shoulder. He esteems the shoulders more tender and better meat than the legs. The meat should be basted with the pickle and molasses once a day for six weeks, when it may be dried or smoked.

VIRTUES OF LIME AS A MANURE.

We mentioned last week the republication of the excellent essay on this subject, by M. Puvis, in pamphlet form, and promised to give the very able *introduction*, with which the edition is prefaced,—from the pen of Professor Renwick, of Columbia College, New York. It will be found below and will more than repay the reader for the time devoted to its perusal; for it is in truth a most luminious paper, replete with intelligence which every farmer should be in possession of. His explanations of the constituents of soils and the mode of action of lime, upon peculiar soils, are both so plain that none who wish to comprehend them can mistake their import. For ourself we are gratified to find gentlemen of Professor *Renwick's* distinction putting their shoulders to the wheel in support of the cause of agriculture, as, besides the brilliant lights which are thrown out by them, the influence of their names is of incalculable value. We should not omit mentioning that the public are indebted chiefly to *Jas. Wadsworth*, Esq. of New York for the edition of this excellent work.

"The chemical facts and principles which are applicable to agriculture, are neither numerous nor complete. They are, however, to be found only in works on general chemistry, in which they are intimately associated with laws and phenomena of a more abstruse description, and in connection with which they constitute a science of which the most learned are still students, and to attain which in its existing form may require years of close and attentive study. The language, too, of chemistry, which, to those who study it in a regular course, serves as an artificial memory, and single words of which call up long trains of thoughts and experiment, presents the uninitiated all the difficulties of a foreign tongue.

Yet it cannot be doubted, that the practical farmer may derive important benefit from acquiring so much of this language as will enable him to understand the chemical explanation of the numerous changes which are continually taking place in the natural actions which it is his high privilege to call into his service, to direct in part, and modify in degree. So also certain chemical elements and compounds, with the properties of which he ought to be acquainted if he wish to be able to direct his practical skill with more effect, even in circumstances familiar to him, but which may be absolutely necessary, or will at any rate save waste of labor and loss of time, when the knowledge acquired by practice in one place is to be employed in a new situation, and under a change of circumstances.

It is the object of this introduction to exhibit, in such a form as may be intelligible to those who have not made general chemistry an object of study, a concise view of such of the laws and facts of that science, as are absolutely necessary for the agriculturist who may wish to improve his practice, and which are more particularly required by those who wish to avail themselves of the knowledge contained in the subjoined essay. To do this has been found no easy task. It would be in itself difficult, but to the author of this introduction has been more particularly so, as he has for years been in the habit of imparting instruction to those whose habits of life and thoughts are as remote as possible from those of the practical farmer; persons to whom the peculiar language of chemistry is an aid instead of an impediment, and who, with ample time at their command, have an opportunity of pursuing the study of of the science step by step. Fully aware of these difficulties, both general and peculiar, this attempt would not have been made, and certainly not persisted in, had it not have been for the instances of an intelligent, scientific and successful farmer, who has urged the completion of the task as an object likely to be beneficial to those, who, with perhaps equal zeal and native powers of mind, have not enjoyed, like himself, the advantages of a scientific education.

The atmosphere which surrounds our earth is the first object to which our attention should be directed. This is the vehicle of the moisture, which, whether it fall in the form of rain or dew, run in streams or issue from springs, is absolutely essential to the success of the farmer's labor. It is also, as we shall presently see, important to him on other accounts.

The greater part of the atmosphere is made up of a mixture of substances, each of which has the same mechanical properties as the whole mass. These air-like substances are known to chemists by the name of *Gases*.

Of these gases, two make up by far the greater portion of atmospheric air, and exist in it in the proportion of about 4 to 1. That which is the largest in quantity and makes up nearly 4-5ths of the whole atmosphere, is called, in the Essay of M. Puvis, by the name of Azot, but is more usually known in English by the name of Nitrogen.

This substance, although in the largest proportion, is the least important of the gases in its chemical effects. It does not aid in supporting the life of animals, nor in maintaining the burning (*combustion*) of inflammable bodies.

The part of the atmosphere which is absolutely necessary for these purposes, is called by the name of *oxygen*, and nearly makes up the remaining fifth part of atmospheric air. In its support of life it always, and in maintaining combustion often, unites with a chemical element, which is called *carbon*. This is familiarly known as forming the principal part of charcoal. In its union with carbon, oxygen forms a peculiar gas known by the name of corbonic acid.

Carbonic acid is always found in small quantities in the atmosphere, to which it is furnished by the breath of animals and the fumes of burning bodies. It is, when in considerable quantities, fatal to the life of animals, but is prevented from accumulating to an injurious extent in consequence of its being taken up by water; it is therefore dissolved, in proportions about equal to those in which it is formed, by rivers, lakes, the ocean, and the moisture of the soil.

Water exists in the atmosphere in the form of vapour. The great source of this vapour is the extended surface of the ocean, and it is governed by a mechanical law, by which it is continually tending to distribute itself uniformly over the whole surface of the earth. It may thus exist in as large quantities over the surface of the dryest land as over that of the ocean itself. The tendency to equal distribution is continually counteracted by the changes in the sensible heat (*temperature*) of the atmosphere, and of the surface of the earth, which follow the alternations of day and night, and the vicissitudes of the seasons. By these alternations and changes, the vapour is caused to fall (*precipitated*) in the form of rain, snow, hail, dew, or white frost, according to circumstances. As such changes of temperature are more frequent on the land than on the ocean, the water which falls on the former in either of these forms is greater in quantity than that which falls on equal surfaces of the latter. Thus by a wise and benevolent Providence, the water of the ocean is continually furnishing vapour, which is precipitated on the land for the support of vegetation and the supply or springs, and whose excess is poured back into the ocean in streams and rivers.

Water has been found by chemists to be a compound substance, made up of two elements. One of these, which forms 8-9ths of its weight, is the gas already mentioned under the name of oxygen; the other, a peculiar gas, known by the name of *hydrogen*.

Hydrogen, when free, is the lightest of all known bodies, rising and floating in atmospheric air; it not only combines with oxygen, to form water, but with carbon to form a great variety of compounds—gaseous, liquid, viscid, and solid. It also combines with nitrogen, and forms a gas known by the name of ammonia, which is well known by the peculiar smell it gives to spirits of hartshorn (*liquid ammonia.*)

Hydrogen also combines with sulphur, forming a gas known by the name of sulphuretted hydrogen; this exists in the atmosphere, but in such small quantities as only to be detected by the nicest chemical tests. It combines in like manner with phosphorus, forming phosphuretted hydrogen gas, whose presence in the air is occasionally perceptible.

Oxygen, as we have seen, unites with carbon, to form a gas which we have called carbonic acid.

This receives the latter part of its name from its similarity in properties to an extensive class of compound bodies, known by the name of *the acids*. The greater part of these, like carbonic acid, are combinations of inflammable bodies with oxygen. The most important of these in reference to our present object, are the sulphuric and phosphoric acids; named from the two substances (sulphur and phosphorus) which are their bases. Muriatic acid may also be mentioned here although its composition is of a different character. Oxygen unites with other bodies to form a class of compounds known under the name of oxides.

The acids unite with earths, alkalis, and metallic oxides, to form a class of compounds known under the general name of salts.—These are named from the two substances which enter into their composition; thus, the salt formed of sulphuric acid and the earth lime, is called sulphate

of lime. The substances which unite with acids to form salts, are called the *bases* of the respective salts.

Of these bases, the alkalis, it is only necessary to know the names of two, namely, *potassa* and *soda*, and to be aware that their distinctive properties, are: to possess an acrid taste, a caustic operation, to render oils capable of mixing with water, and to neutralize the properties of acids.

The earth which the chemists call by the name of silex or *silica*, is found almost pure in flint and rock chrystal; it is also almost pure in sharp colourless sands, and is by far the larger part of sands of every description. So far as the farmer need know its properties: it is hard, rough to the touch, has no attraction for water, which it permits to filter through, or evaporate from it, with the greatest ease. It is capable of uniting with the other in compounds which are called silicates, and is the only earth which enters into the formation of soils uncombined with the others or with other elements.

The earth which chemists call by the name of *alumina*, is so named because it is obtained by them in a pure form from the well known salt called alum, of which it is the basis. Its most marked characteristic is plasticity: that is to say, it may be formed into a paste with water, will then easily receive any form which may be given it, and retain that form unaltered, even by violent heat. It never exists in soils unmixed, but in intimate association, or more probably chemical combination with silicia, it is the well-known substance called clay, or argillaceous earth. White clays are this combination nearly pure, and coloured clays often contain it with no other addition than metallic colouring matter. Clay retains the plastic property of alumina; it therefore causes soils to be retentive of moisture; and when they dry, make them form tough clods or crusts, similar in character to sun-dried brick.

Soils which contain clay are often also mixed with sand, or with an excess of silica in grains, which does not enter into the composition of the clay. Such a soil is less liable to form a tough crust than a pure clay, but it will require a very large proportion of sand to destroy this property altogether.

Clay mixed with sandy soils render them more retentive of moisture. Sand and clay have therefore been used as manures for each other; but it may reasonably be doubted whether all the advantage that has been anticipated by some from this process, can be realized, as such a mixture will be merely mechanical.

Loamy soils are generally said to be mixtures of sand and clay; they undoubtedly usually contain both these earths; and even sometimes a large excess of sand. But we shall give reasons for believing that loams owe their peculiar value to a combination of clay with another substance, by which a change is produced in its chemical characters.

Lime is familiarly known by the same name that is generally used by chemists. It is obtained by the aid of heat from rocks which go by the name of limestones. These are combinations of lime with carbonic acid, which is fixed in them by chemical attraction, but which, when driven off by heat, takes the same form as the air of the atmosphere, or becomes a gas. This gas from this circumstance has been called *fixed air*, by which name it is often known when causing the sparkling and froth of cider and beer. The principal part of lime-stone is therefore called by chemists *carbonate of lime*. Carbonate of lime is also found in shells, both those of living animals and those which exist in the ground in a fossil state. In the former it is mixed with animal matter which is more or less separated since the death of the shell fish.

Marl, in the sense in which the term is used by chemists, is a mixture of clay with carbonate of lime. The English writers on agriculture have not observed this distinction, and the term is sometimes applied by them to a decomposed chalk, which may contain little or no clay: and sometimes to clay which contains no carbonate of lime. In fact, the name is frequently applied by them to any earthy matter found below the vegetable soil, which is capable of increasing its fertility. From this misapprehension, the substances which go by the name of marl in New-Jersey, Maryland, and Virginia, do not correspond with the chemical definition, but are generally beds of fossil shells mixed in various proportions with earthy and saline matters of various kinds.

Lime is a substance very different in its characters from the two earths of which we have previously spoken. When prepared by heat from any of the original forms of its carbonate, it retains their shape unaltered, but may have its colour changed, and always loses considerable in weight. It is now acrid, caustic and corrosive, and alkaline. Of these the most important is, that it unites with acids to form compounds included in the general class of salts. Of the salts of lime which are important to the farmer, the three principal are: the *carbonate*, which, as we have stated, is found in lime-stone, chalk, and marl; the *sulphate*, in which lime is combined with sulphuric acid, and which in combination with water is the substance so well known to our farmers under the name of plaster of Paris, or less familiarly by that of gypsum; the *phosphate*, which constitutes a part of the bone of animals.

Lime, when exposed to the air, attracts carbonic acid, which is always to be found in the atmosphere; it thus passes back to the state of carbonate, but in so doing gradually falls to powder, and is then said to be *air-slaked*. If slaked with water, it also falls to a powder, which still retains the caustic character of the burnt lime; but this powder, when exposed to the air, unites with carbonic acid more rapidly than when in mass.

Lime, in its caustic state, has the property of rapidly decomposing vegetable and animal substances, thus hastening the natural processes by which they are finally destroyed; or, to speak more properly, have their elements resolved into new combinations. The offensive and unwholesome gases, which are given out by this composition, are absorbed by the lime, and probably by its other compounds; but in order that either this earth or its compounds shall manifest this property, they must be in small fragments, or, which is better, in fine powder.

Wet sand and plastic clay, and those soils to which they give their characters, also possess the property of absorbing gases; but they have this in a very inferior degree to lime and its compounds. As the gases generated by the decomposition of vegetable and animal substances form a large part of the necessary food of plants, it is obvious that a soil which contains the carbonate of lime, may retain and store them up for use, while they will be lost in soils of a different character.

Carbonate of lime may also be made a most important article in the preservation of the most valuable parts of putrescent manures, until they can be applied to the soil. In this way marl is applied to a great extent in China; the night soil of their numerous population is there formed into cakes like bricks, with marl, and thus loses its offensive smell; but when these are applied as manure to the land, they give out the gases again as they are required for the nourishment of plants. So also in Norfolk, the site for dung-hills is prepared by a layer of marl, which is incorporated with the manure from time to time, and retains the gases which would otherwise be lost.

Lime may therefore be applied in its caustic form in some cases in agriculture, for it will hasten the decomposition of animal and vegetable matters which might be otherwise inert; it will also neutralize acids, which experienced farmers well know to exist in many soils, which they in consequence call sour. But the latter purpose will be answered as well by the carbonate of lime, which may be applied as it exists in marl or shells, or as it may be prepared by grinding limestone. Caustic lime is also dangerous in its application, for it will corrode and destroy living vegetables, and hasten the decomposition of the vegetable matter of the soil to such a degree as to injure its fertility. Except upon turf bogs, and land loaded with timber not wholly decomposed, quick or caustic lime ought not to be used; but to burn lime, and then by slaking to reduce it to the form of fine powder, which is speedily carbonated by exposure to the air, is a more ready, and generally a cheaper mode of obtaining the carbonate in a convenient form, than to grind limestone to powder in mills. Yet for many of the most valuable uses of lime in agriculture, the latter method, if as cheap, would answer as well.

Lime slowly combines with the earth silica, and produces a compound very different in character from either. It is this, to cite a fact in proof of our statement, which gives the sharpness and solidity to ancient mortar. The carbonate of lime will serve to form this compound: and thus, when it has time to act upon sand, it renders a silicious soil more retentive of moisture; while, if applied to clay, by combining with its silicious matter, it renders it more friable; and it is to the formation of this compound, by slow degrees, that we are inclined to ascribe the valuable mechanical properties of loamy soils, and the gradual amelioration produced by the use of lime, marl, and shells, as a manure.

Besides silica, alumina, and lime, an earth called magnesia is likewise found in some soils. It is also, in the form of carbonate, a frequent constituent of limestones. This earth has many properties in common with lime; like lime it is

capable of neutralizing acids; and when deprived of carbonic acid by heat, corrodes vegetable substances. It probably also hastens putrefaction, and both it and its carbonate are capable of absorbing gases let loose in that natural process. It is, however, of little interest in agriculture, except as a part of some of the limestones which are used as manure. This, if applied in large quantities, are sometimes very injurious to vegetation; the reason of this is, that magnesia does not repass to the state of carbonate as rapidly as lime, and therefore contains its corrosive quality long after the lime has again become mild by its union with carbonic acid. In less quantities, however, the magnesian limestones may serve as a manure, but their application requires great caution, particularly when the quantity of magnesia amounts to twenty-five per cent.

All of the simple substances we have mentioned, except perhaps the last, either separate or in various states of combination, exist in plants. The manner and character of the combination is influenced by the vital action of the plant which causes them to form compounds, often in direct opposition to the manner in which the ordinary laws of chemistry would direct. It thus happens that so soon as the plant ceases to live, these chemical laws being no longer impeded, begin to avert their influence; and if it be in such a state as will admit of the several elements acting readily upon each other, a decomposition, more or less rapid, of the vegetable structure ensues. It is a law of chemistry, that its action is always aided by the bodies being in a fluid state, and the action is often impossible when the bodies are perfectly free from moisture. Hence the direct chemical action, and consequent decomposition, takes place with greater certainty and more rapidity in green juicy and succulent vegetables, than upon those which have been deprived of moisture either naturally or artificially. The grass, if heaped up in a recent state, decomposes, and if but partially dried, is heated, and may even take fire, by the chemical action of its elements; while, if dried by exposure to the sun and air, and then laid up in a dry place in the form of hay, it is almost indestructible. A moderate degree of heat and access to air is also necessary to promote the chemical action by which decomposition is effected. This decomposition is often attended with motion among the parts; and always, if the mass has a liquid form, as in the expressed juice of vegetables, or in the steeps employed by distillers and brewers, it goes in general terms by the name of fermentation. When the vegetable matter abounds in starch, the first change is the conversion of this principle into sugar. Sugar, if thus formed, is next converted into alcohol, as it is, if previously existed in the plant. The presence of alcohol gives the liquid in which it exists the character of vinous liquors, and if these are permitted to remain in a turbid state, a farther fermentation converts them into vinegar; and finally vinegar is farther decomposed, and the vegetable matter, giving out an offensive smell, is said to putrify. If the substance be not an expressed juice or liquid steep, these several stages of fermentation ensue with rapidity, may be going on at the same time, and are sometimes so speedy in their course that no other action but the putrefactive fermentation can be detected. Animal bodies are subject to the same laws, and go through the same stages of fermentation, but the rapidity with which they run into putrefaction is even greater; still there are some cases, as in that of milk, where the vinous stage can be occasionally, and the acetic distinctly, observed. Thus, a vinous liquor is prepared in some countries from milk, and the sour taste which appears in it when kept, arises from the presence of vinegar.

In the several stages of fermentation, parts of the vegetable assume the form of gas or vapour, and are given out to the air. The gases which have been detected, are carbonic acid, a gaseous compound of carbon and hydrogon, and in some instances ammonia. The vapour is that of water, which escapes in greater quantities than it would under ordinary circumstances, in consequence of the heat with which the process is attended. If exposed to rain, soluble salts, with earthy and alkaline bases, are washed from the mass. Finally, a mass of earthy consistence alone remains, which, on examination is found to be made up of earths, insoluble salts, and carbon, being, in fact, identical with vegetable mould.

We may hence infer that the following elements exist in vegetable bodies:

1. Oxygen, developed in the carbonic acid and water.
2. Hydrogon is in the water and carburets of hydrogon.
3. Carbon.
4. Earths.
5. Alkalis.
6. Nitrogen, occasionally developed in the form of ammonia.
7. Acids remaining in the insoluble, or washed away in the soluble salts.

The chemical examination of vegetable bodies ought of course to lead to similar results. This examination has been conducted in 3 different ways.

1. With the view of discovering the nature of the compounds, called vegetable principles, which exist ready formed in plants..
2. For the purpose of discovering the chemical elements contained in these principles.
3. By the destructive action of heat, under which some of the elements are wholly separated, and others enter into new combinations.

In the first of these methods there have been detected:

I. Certain peculiar acids, of which we may cite

(1) Acetic acid, which, mixed with water, forms common vinegar.
(2) Citric acid, which is found in the lemon and orange.
(3) Malic acid, which exists in the apple.
(4) Tartaric acid, in the juice of the grape.
(5) Oxalic acid, in the wild sorrel.

THE HOVEN.

This disease, after the long continued and drenching rains which have just subsided, may be expected to prevail more or less in every part of the country which has been visited by them, as all the ordinary grasses, as well as clover, are greatly increased in succulence. We would, therefore, recommend the following *recipe*, from an experience in its utility, to the consideration of farmers. The disease is one which cannot be mistaken,—the distress of the animal is so apparent; its breathings so short, so loud and so difficult, as to afford at once an *index* that no one can mistake. And then the *distension* and *induration* of the sides of the animal, its indisposition to exercise, swollen eyes, wildness of stare, and whole appearance, comprise a series of symptomic affections, which he that runs may read. When the agony becomes intense, as it will in a short time, if remedial means be not resorted to, the power of chewing the cud is lost, and adds much to the sufferings of the animal. We have thus far spoken of the effects of the disease, and will now proceed to state the curative remedies that we have found availing.

As soon as you find that your bull, cow, ox or other animal is afflicted, give him the following mixture, if two years old and upwards; if under that age one half the quantity will answer, viz:

1 pint of oil of any kind,
1 pint of gin, or other liquor,
1 oz. cayenne or other pepper,
1½ oz. epsom or glauber salts,
20 grains of ipecacuanhah,
2 oz. ginger.

The whole to be mixed in a pint of water boiling hot, the which as soon as it is cooled down to the temperature of new milk must be administered in *moieties*, at intervals of half an hour. *Let the animal be kept walking until the medicine acts freely*, and it chews its cud without difficulty; then no farther danger need be apprehended.

We succeeded in a recent case in overcoming the disease and saving a fine Durham heifer by the above prescription, after her disease had assumed a degree of violence that almost forbid hope itself.

An injection composed of:

1 pint of warm water
½ pint of molasses,
A handful of salt, and
1 oz. of soap,

will serve as a most valuable auxiliary means to the above.

In 9 cases out of 10 the above treatment will be sure to succeed; but there are cases when all internal means prove unavailing, and when the knife must be used—when the paunch must be perforated—to afford relief—in such cases, let any judicious man place his thumb on the *left* hip bone of the animal, measure *forwards* one span, then *downwards* towards the flank one span, (if

the animal be full grown, and if not, allowance must be made)—the spot where the fore finger touches is the one in which the operation must be performed. If you have no proper instrument, take a small pen-knife and plunge it in to the depth of the blade, *quickly*, when the accumulation of wind will find vent and afford immediate relief to the suffering animal. In describing the *modus operandi*, we have not troubled the reader with the *technicals* of the profession, because, in matters of this kind, we prefer rendering *service*, to gaining a reputation as a vender of hard names.

If the ingredients we have named be not convenient, give:

1 pint new milk, *warm*
½ lb. of white or other soap, the first preferable——or
2 lbs. melted butter, or lard
1 oz. cayenne pepper
or
½ pint salt, to be dissolved in
1 pint of hot water
1 gill of hartshorne.

But remember, no matter what medicine you may give, the animal *must be kept in motion.*

PROSPECT OF CROPS IN ENGLAND.

[From the London Herald.]

Agricultural Report for April.—When we examine the condition of the growing crop we see little or rather no cause for apprehension of failure. The frosts which succeeded the rain of March and the early part of this month, almost always by cold winds, have not deteriorated the wheats to the degree that might have reasonably been anticipated. On the contrary, the few warmish days which even now (April 22) have shown out have restored the color, and the shoot has been manifest. The re-action, should it please Providence to grant us seasonable weather, will, we are persuaded, be found equal very soon to bring the vegetation to its customary state; and perhaps when there is stored in the ground so much of the nourishment of the plant, waiting only to fulfil its natural purpose for the warm beams of May, when the check given to the destructive insects by this last year, a check not experienced for the preceding three winters—when these circumstances are taken into consideration, we do not see the smallest reason to calculate upon deficiency to be occasioned by the backwardness of the spring.

Whether the coming on of harvest be or be not protracted, belongs much more to the months which are to come than to those which are past.

One month of really bright weather co-operating with the moisture with which the earth is now saturated, would probably place the whole growth in a better and more luxuriant, and of course a more forward condition than has appertained to the previous springs, in which moisture the prime agent next to heat, has been wanting. The barley sowing has been successfully concluded on all but the heaviest and wettest soil; upon the lighter, it was perhaps, never better got in, and we have seen some up, and in very vigorous growth. The grass experiences, and respond to the few warmer days. The turnips, though now all but exhausted have held out better than was expected; and the grass lands will soon give their customary supply—more indeed, than for the last two or three seasons—should the weather shine out brilliantly.

Remedy for the Lock Jaw.—We are informed by a friend that a sure preventive against this terrible disease is to take some soft soap, and mix it with a sufficient quantity of pulverised chalk, so as to make it of the consistency of buckwheat batter; keep the chalk moistened with a fresh supply of soap until the wound begins to discharge, and the patient finds relief. Our friend stated to us that implicit confidence may be placed in what he says, that he has known several cases where this remedy has been successfully applied. So simple and so valuable a remedy, within the reach of every person, ought to be universally known.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
Apples,	barrel.	——	——
Bacon, hams, new, Balt. cured	pound.	15	17
Shoulders, ... do	"	12	——
Middlings, ... do	"	13	14
Assorted, country,	"	11	13½
Butter, printed, in lbs. & half lbs.	"	25	31
Roll,	"	20	20
Cider,	barrel.	——	——
Calves, three to six weeks old	each.	4 50	6 00
Cows, new milch,	"	25 00	50 00
Dry,	"	9 00	12 00
Corn Meal, for family use,	100lbs.	——	1 87
Chop Rye,	"	——	1 87
Eggs,	dozen.	——	12
Fish, Shad, No. 1, Susquehanna, No. 2,	barrel.	10 00	——
"	"	9 50	——
Herrings, salted, No. 1,	"	3 37	——
Mackerel, No. 2, ——No. 3	"	——	——
Cod, salted,	cwt.	3 00	3 25
Lard,	pound.	15	17

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

U. S. Bank, ... par
Branch at Baltimore, ... do
Other Branches, ... do

MARYLAND.

Banks in Baltimore, ... par
Hagerstown, ... ½a
Frederick, ... do
Westminster, ... do
Farmers' Bank of Mary'd, do
Do. payable at Easton, ... do
Salisbury, ... 5 per ct. dis.
Cumberland, ... ½a
Millington, ... do

DISTRICT.

Washington, Georgetown, Alexandria, } Banks, ½.

PENNSYLVANIA.

Philadelphia, ... ¼a
Chambersburg, ... ½a
Gettysburg ..... do
Pittsburg, ... 2a2¼
York, ... ¼a
Other Pennsylvania Bks. 1¼a2
Delaware [under $5] 3a4
Do. [over 5] 1a2
Michigan Banks, ... 5a
Canadian do. 5a

VIRGINIA.

Farmers Bank of Virginia 1a2
Bank of Virginia, ... do
Branch at Fredericksburg do
Petersburg, ... do
Norfolk, ... do
Winchester, ... do
Lynchburg, ... do
Danville, ... do
Bank of the Valley, ... do
Branch at Romney, ... 1
Do. Charlestown, ... do
Do. Leesburg, ... do
Wheeling Banks, ... 3¼a4
Ohio Banks, generally 3a4
New Jersey Banks gen. 1¼a2
New York City, ... ¼a
New York State, ... 2½a3
Massachusetts, ... 2a2¼
Connecticut, ... 2a2¼
New Hampshire, ... 2a2¼
Maine, ... 2a2¼
Rhode Island, ... 2a2¼
North Carolina, ... 3a3½
South Carolina, ... 3a3½
Georgia, ... 3¼a4
New Orleans 5

BALTIMORE PRODUCE MARKET.

☞ *These Prices are carefully corrected every* Monday.

	PER.	FROM	TO
Beans, white field,	bushel.	1 75	——
Cattle, on the hoof,	100lbs.	7 00	8 50
Corn, yellow,	bushel.	79	80
White,	"	77	78
Cotton, Virginia,	pound.	——	——
North Carolina,	"	——	——
Upland,	"	18¼	20
Feathers,	pound.	50	52
Flaxseed,	bushel.	——	1 50
Flour & Meal—Best wh. wh't fam.	barrel.	7 75	8 25
Do. do. baker's	"	7 50	8 00
Do. do. Superfine,	"	6 87	7 12
Super How. st. in good de'd	"	6 87	7 00
" " wagon price,	"	6 75	6 87
City Mills, extra,	"	——	7 00
Do.	"	6 75	6 87
Susquehanna,	"	6 87	——
Rye,	"	4 75	——
Kiln-dried Meal, in hhds.	hhd.	——	19 50
do. in bbls.	bbl.	——	4 37
Grass Seeds, red Clover,	bushel.	4 50	5 00
Timothy (herds of the north)	"	2 50	3 00
Orchard,	"	none	2 50a3
Tall meadow Oat,	"	2 25	2 50
Herds, or red top,	"	1 00	1 25
Hay, in bulk,	ton.	——	20 00
Hemp, country, dew rotted,	pound.	6	7
" water rotted,	"	7	8
Hogs, on the hoof,	100lb.	——	9 25
Slaughtered,	"	——	——
Hops—first sort,	pound.	16	——
second,	"	14	——
refuse,	"	12	——
Lime,	bushel.	35	37
Mustard Seed, Domestic,	"	——	——
Oats,	"	40	45
Peas, red eye,	bushel.	——	——
Black eye,	"	1 12	——
Lady,	"	——	——
Plaster Paris, in the stone,	ton.	4 00	4 25
Ground,	barrel.	1 50	——
Palma Christa Bean,	bushel.	——	——
Rags,	pound.	3	4
Rye,	bushel.	80	85
Susquehannah,	"	——	85
Tobacco, crop, common,	100 lbs	4 75	5 00
" brown and red,	"	5 00	7 00
" fine red,	"	7 00	9 00
" wrappery, suitable for segars,	"	5 00	10 00
" yellow and red,	"	6 00	8 00
" good yellow,	"	8 00	12 00
" fine yellow,	"	12 00	16 00
Seconds, as in quality,	"	4 25	5 00
" ground leaf,	"	5 00	8 00
Virginia,	"	7 00	14 00
Rappahannock,	"	——	——
Kentucky,	"	8 00	14 00
Wheat, white,	bushel.	——	1 50
Red,	"	1 40	1 43
Whiskey, 1st pf. in bbls.	gallon.	34	35
" in hhds.	"	33	33½
" wagon price,	"	31	——
Wagon Freights, to Pittsburgh,	100 lbs	1 25	——
To Wheeling,	"	1 50	——
		washed.	unwash
Wool, Prime & Saxon Fleeces,	pound.	55 to 68	30 32
Full Merino,	"	48 55	28 30
Three fourths Merino,	"	45 48	26 28
One half do.	"	40 45	24 26
Common & one fourth Meri.	"	36 40	22 24
Pulled,	"	38 40	22 24

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Printed by Sands & Neilson, N. E. corner of Charles and Market streets.

CLAIRMOUNT NURSERY, May 25th, 1836.

CATALOUGE OF DOUBLE DAHLIAS FOR SALE.

6	Inwood's Crimson Multiflora, flowers early, 5 ft.	$ 75
5	Jane Insurmountable, superb yellow, fine shape, 7 feet,	50
12	Pieta Formaziosama, beautiful scarlet, striped with orange, 6 feet,	50
4	National Guest—new and very fine,	2 00
4	Rose d'Amore, inner petals white, 7 feet,	75
6	Marshal Landgrevine, a Rose Lilack, fine, 7 ft.	50
3	Widnal's Grants, deep claret, splendid flower, 5 feet,	1 00
3	Delicate Blush,	50
9	Richardson's Alicea, white, with deep pink edge, 4 feet,	75
6	Levick's Incomparable, scarlet, tipped with white, 6 feet,	1 00
2	Lady Gray, pink and white, fine, 4 feet,	75
6	Prince of Orange, fine orange, 5 feet,	60
12	Jane Brom Sines, deep red, 5 feet,	50
2	Neptune, a beautiful Lilack, a magnificent full flower, 4 feet,	75
6	Beladona, purple and white, fine,	50
3	Chanel's Renunculas,	50
4	Buckhanan's Compacta, dark crimson, fine shape, 4 feet,	75
2	Lord Brougham, superb crimson, 5 feet,	75
3	Marchinoness of Lotham, fine crimson, good shape and color, 4 feet,	75
2	Widnal's Plutos, a fine rose lilack, 4 feet,	1 00
2	Shiffuris exolata, fine yellow,	50
2	Alba Fimbrata,	50
1	Deneres Queen of the whites,	1 25
1	Widnal's Perfection, fine rosy crimson,	1 00
2	Lord Derby, superb deep crimson, full flower, 5 feet,	1 00
2	Henry the VIII., a deep dark purple, most black, 5 feet,	1 00
2	Widnal's Golconda, white penciled with lilack, 6 feet,	75
3	Lord John Russel, a globe crimson, 5 feet,	1 00
1	Pluto, dark purple,	1 00
2	Crus Purpurio Varigata,	1 00
2	Countess of Liverpool,	1 00
2	Widnal's Village Maid,	2 00

Many others.

I will take $6 for a dozen of my selection, and will send superb sorts, not having any bad ones. june 1

FIELD SEEDS.

NEW AND RARE SORTS.

THE Subscriber is just receiving ADDITIONAL SUPPLIES of European and other FIELD SEEDS, among which are MANY NEW and RARE KINDS, and well adapted to suit the MIDDLE and SOUTHERN STATES, viz:

PERENNIAL and ITALIAN RYE GRASS, these grasses, particularly the former, are extensively cultivated in Europe, are generally mixed with clover; fine pasture, rich moist meadow land suits them best. Sow 1 bushel to an acre.

SAINFOIN or ESPERSETT, particularly adapted to a calcareous or chalky soil, considered in England, one of the most valuable plants: farmers not possessing calcareous soils, may succeed with this grass by dressing their lands with clay marl. This grass would no doubt flourish well in our most southern states.—3 to 4 bushels of seed should be sown per acre.

FIELD BURNETT, this grass is well suited for sowing on high, gravelly soils; fine sheep pasture—sow 2 bushels per acre.

SCARLET CLOVER, or TREFOIL—*Trifolium Incarnatum.* A valuable early grass, and fine for soiling in summer, or supplying food when other grasses are winter killed. If sown in the fall it can be cut three weeks earlier than common clover, or if sown in the months of April, 50 days after sowing. From its rapid growth it is likely to become a valuable acquisition to the farmer—20lbs. is required to seed one acre. Also for sale a few pounds YELLOW TREFOIL.

WHITE DUTCH CLOVER.—Fine pasture, and for lawns. Its increase is very much facilitated by a top dressing of ashes—sow half peck per acre.

BLUE GRASS, GREEN GRASS, &c.—Suitable for sowing fine green swards, and sometimes sown for sturpam and on meadow land—sow 1 to 2 bushels per acre.

SWEET SCENTED VERNAL GRASS.—Particularly valuable for pasture, very early; proper situation well drained meadow land.

MILLET.—The stalk of this plant resembles those of Indian corn, though much smaller, principally valuable for green fodder, 2 good crops can be raised during the season, the first to be sown about the 20th May, on a rich light soil—half a bushel of seed should be sown per acre, if fodder is the object, and less if for seed.

ENGLISH & POLAND OATS—several sorts weighing 44 lbs. per bushel, cultivated as the common kinds.

SKINLESS OATS.—The grain naked like wheat, should be sown about 15th April. A product of 80 bushels, is said can be produced from one acre, and each bushel is worth three times more than the common oats—price 50 cts. per lb.

SPRING & WINTER VETCHES OR TARES.

LUCERNE OR FRENCH CLOVER—Very valuable, especially for soiling, bears cutting several times during summer, requires a deep rich loam, not wet. Stands the severest winters, and drought does not effect it—20 lbs. is sufficient to seed one acre, if sown broad cast—half a bushel of rye or oats if sown with 20 lbs. of seed will effectually protect the tender plants from weeds.—See Am. Farmer.

GAMA GRASS.—This last but not least in value, is a strong coarse grass, indigenous to all the Southern States, but has been but partially cultivated, its product is immense. Animals eat it with avidity. An ounce of seed which contains 260 kernels, will by being planted and subdivided three seasons in succession, enable the culturist to set out a meadow of 53 1-2 acres, which will last him an age—price 50 cts. per ounce.

ALSO

MANGOLD WURZEL, or large pale red Beet; RUTA BAGA; LARGE YELLOW TURNIP; ROUND & LONG CROOKED PUMPKIN; FIELD PEAS and BEANS; COW CABBAGE, or *Cacaessnam Kale*, a fine green fodder for cattle; Altringham Carrot; MERCER, EARLY KIDNEY & EARLY ROUND POTATOES.

For sale by R. SINCLAIR, Jr.
june 1 Light, near Pratt st.

FARMERS' REPOSITORY.

No. 36 W. Pratt-street, Baltimore, Jan. 25, 1830.

THE proprietor avails himself again of the commencement of a New Year, to express his grateful thanks to his numerous friends and customers for their kind and liberal support of his Agricultural Establishment, and is happy to say that his ceaseless exertions to accommodate the public, have not been without a corresponding encouragement from them, and with his present Improvements and Machinery, he is able to manufacture his Agricultural Implements much better than formerly, and with greater facility, and hopes to merit continued patronage. He now presents to the public an article new in its construction, for grinding corn and cob for feeding horses and stock. To those who approve this mode of feeding, this machine is worthy their attention. Also, Corn Shellers to be worked by hand or horse-power. He has a variety of Straw Cutters; but his own patented Cylindrical Straw Cutter is not surpassed by any other implement of the kind in existence; he has recently made some improvements in their construction, which adds to their cost, and for which he has been obliged to add a trifling advance on the price of the small size:—his prices for them being as follows, viz:

11 inch Revolving Bottoms $30, with extra pair of knives.				$33
11 "	Permanent Bottom 28,	do	do	31
13 "	Permanent Bottom 43,	do	do	48
13 "	Revolving Bottom 45,	do	do	50
15 "	Revolving Bottom 50,	do	do	56
20 "	Large size fitted for horse-power 80,	do	do	90

His variety of Ploughs embraces almost every description and size that are worthy of notice, from a small seed Plough to the large rail road Plough—Gideon Davis' Improved Ploughs in all their variety, with cast and wrought shares; these castings are now made on his own premises, of the best stock and with special care; a supply of them always on hand to sell separate from the ploughs when required. Ox Scrapers for levelling hills, &c.; common and patent Wheat Fans; Fox & Borland's spring concave Thrashing Machines, large and small size, and portable horse powers for the latter; also one of Z. Booth's 2 horse Thrashing Machines and stationary horse power for the same; Brown's vertical patent Wool Spinners, and Watson's patent Washing Machine, both very simple and useful machines for families; Harrows; double and single corn and tobacco Cultivators; superior grain Cradles; and a great variety of other farming implements of a prime quality, and all on reasonable terms, at wholesale and retail.

Likewise in store—Orchard Grass, Timothy, and Herds Grass Seed of superior quality.

mh 22—eo2m JONATHAN S. EASTMAN.

OXEN WANTED.

THE EDITOR OF THE FARMER AND GARDENER, Baltimore, Md. wishes to purchase 4 pair of Eastern OXEN. It is necessary that they should be good matches, young, large sized, well broken, of docile disposition, and that the *yoke* in which they have been used to work should accompany each pair.

Farmers and others, to the eastward, possessing such animals will please make immediate application, stating the character, &c. of their respective Oxen, price deliverable at Baltimore, and time when they can be delivered there.

May 24th. 4t.

AGRICULTURAL IMPLEMENTS, GRASS SEEDS, &c.

JAMES MOORE, successor of Sinclair & Moore, Light street near Pratt, tenders his thanks to the agricultural community, for the liberal patronage heretofore afforded to the Maryland Agricultural Repository, and respectfully invites the attention of farmers and others, to his stock of articles now on hand, comprising a large assortment of PLOUGHS of the most approved patterns, both wrought and cast shears, and of sizes adapted to all the purposes of agriculture—also Hill side and double mould board ploughs.

Corn cultivators of different kinds, those with five wrought tines generally preferred: Harrows of different shapes and sizes.

Corn shellers, the usefulness of which has been fully attested, and the increased sales of the last year, together with the many impressions of their utility, by those who use them, give evidence of their excellence—price $20. Subject to a discount of 5 per cent for cash payment.—Price from $15 to $30. Improved Wheat Fans, of different sizes.

Cylindrical Straw cutters, a superior article for cutting any kind of long forage, 20 inch boxes adapted to horse power, $75—extra knives per set $6. 14 inch box adapted to manual power $45—extra knives $5 per set. 11 inch box which has some recent improvements $30—extra knives, $3 per set. Common dutch straw cutters from $5 to $7 50.

Garden and Field Tools, such as spades, shovels, hedge shears, mattocks, grubbing hoes, pruning tools, and hoes in a variety of forms, &c. Cast steel axes, warranted, Wove wire for screens, fans, cellar windows, safes, &c. Cotton Gins made to order—Grain Cradles—Harvest tools in their season.

Machines for sowing clover seed, which distribute the seed with regularity over a space of 12 feet at a time.

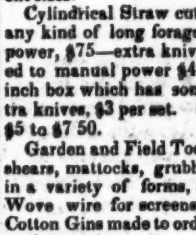
Having an *Iron Foundry* attached to this establishment extra castings for ploughs of all kinds, Threshing machines, Horse powers, Mill work, window weights, &c can be furnished or made to order of the best quality and at moderate prices.

FIELD SEEDS.

Orchard grass, Herds grass, Tall meadow oat grass.—Timothy and Clover; also on hand a lot of Ruffle oats.—Buckwheat, Millet, Potato Oats, &c.

Retail sales mostly confined to town acceptances, or to cash for which a discount will be made on implements.

SUPERB DOUBLE DAHLIAS.



The subscriber has now the pleasure to offer to his friends a numerous collection of those splendid FLOWER ROOTS. The assortment consists of about one hundred fine varieties, embracing all the various shades and colours. ☞Printed directions, relative to planting and general management will be furnished to each purchaser. Price 50a75 cents, 1a$2 each. A liberal discount will be made when 1 doz. or more are taken. ROBT. SINCLAIR, jr.

may 10 Light, near Pratt street wha

GAMA GRASS ROOTS.

5000 Gama Grass roots will be received, and for sale about the 20th of March. By obtaining roots of this valuable grass, farmers will gain the advantage of two years over seed plantation.

March 1. ROBT. SINCLAIR.